

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
REVISED GRANT WORK PLAN
DEP AGREEMENT NO.: R2141**

ATTACHMENT 3-A

I. TITLE PAGE

1. PROJECT TITLE: Martin Lake Estuary Resilience Assessment

2. GRANTEE Contact Information:

Organization Name: City of Parker

Name of Authorized Signer: Rich Musgrave

Title: Mayor

Address: 1001 W Park Street

City: Parker

Zip Code: 32404

Area Code and Telephone Number: 850-871-4104

E-mail Address: rmusgrave@cityofparker.com

3. GRANT MANAGER Contact Information:

Organization Name: Emerald Coast Regional Council

Name: Ada Clark

Title: Community & Economic Development Manager

Address: 36474 A Emerald Coast Parkway

City: Destin

Zip Code: 32541

Area Code and Telephone Number: 850-279-6848

E-mail Address: ada.clark@ecrc.org

4. FISCAL AGENT Contact Information:

Organization Name: City of Parker

Name: Belinda Adams

Title: Bookkeeper

Address: 1001 W Park Street

City: Parker

Zip Code: 32404

Area Code and Telephone Number: 850-871-4104

E-mail Address: badams@cityofparker.com

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5. FEID No. (a.k.a. Tax ID#): 59-1210069 Seq No. 001

6. WORK PERFORMED BY: (Select only one)

 Grantee ONLY
 X Subcontractor ONLY
 BOTH the Grantee & Sub-Contractor
 To Be Determined

7. SUBCONTRACTORS CONTACT INFORMATION: *(If applicable & known)*

Organization Name: Florida State University
Name: Gary Ostrander
Title: Vice-President for Research
Address: 874 Traditions Way, 3rd Floor
City: Tallahassee
Zip Code: 32306-4166
Area Code and Telephone Number: 850-871-4104
E-mail Address: SRA-Pre@fsu.edu

8. PROJECT LOCATION:

A. List of County(ies): Bay County

B. List of City(ies)/Town(s)/Village(s): Parker, Springfield

C. State Lands Lease Agreement Number(s): N/A

Provide lease agreement number(s) for any work that will be performed on State Lands. If work will not be on any state lands, please indicate N/A.

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II. WORK PLAN

- 9. PROJECT SUMMARY:** A resilience plan to return Martin Lake to a natural estuary by restoring its natural connection to St. Andrew Bay is a much-desired outcome for the Cities of Parker and Springfield. The first phase of this project is an environmental assessment and feasibility study. Martin Lake was dammed when U.S. Highway 98 Business was originally constructed. Restoring the natural water flow would improve stormwater management by improving drainage and reducing flood risk, increase habitat for local fish and wildlife species, and improve coastal access by increasing recreational opportunities.
- 10. PROJECT SCOPE OF WORK:** Martin Lake is located between the Cities of Parker and Springfield. A weir underneath U.S. 98-BUS closes off the lake from greater St. Andrew Bay. Arizona Chemical Company and WestRock Mill are located on the northwest shore, whose historic and current uses potentially contribute to runoff pollution. Without an outfall, sediment has continued to accumulate in Martin Lake. The lake-bed has also not been dredged since the dam's original construction, so Martin Lake's water table is considerably higher than that of St. Andrews Bay, which increases instances of localized flooding and potentially exacerbates repetitive loss occurrences. With the significant loss of trees from Hurricane Michael, even minor rainstorms create significant stormwater management issues for both cities.

The former estuary is habitat to numerous fish and wildlife species, and a restored estuary could increase recreational opportunities. The City of Parker already operates the Parker Environmental Exploratorium Park (PEEP) as an ecology park along a section of Martin Lake shoreline, which is also a certified bird sanctuary. The City of Springfield has expressed a desire to create more walking trails for its residents and a trail network along lake tributaries would be welcomed.

The Cities of Parker and Springfield have discussed this project with state and federal agencies such as Florida Department of Environmental Protection (FDEP), U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (EPA), and U.S. Department of Transportation (DOT). The consensus was little could be done without having more clarity on what if any contaminants are currently in the water and lake sediment. FDEP indicated upland monitoring wells are currently installed on chemical plant and paper mill sites, and that the companies are in compliance with all of their permits.

An environmental assessment would identify any contaminants that are in and around Martin Lake, which would help inform a subsequent action and remediation plan. A concurrent feasibility study would identify possible solutions and potential alternatives for restoring natural water flow between Martin Lake and St. Andrew Bay, and how other infrastructure and additional elements may be impacted (e.g., stormwater systems, lift stations, levees).

This would be the start of a multi-year long-term regional project that would also include the City of Callaway and Bay County as these two jurisdictions also share Martin Lake shoreline. The City of Springfield is fully committed to supporting the City of Parker in Phase one of the resilience plan and the Emerald Coast Regional Council is provide administration and technical assistance. ECRC received a grant from the Economic Development Administration, which funded a Disaster Recovery Coordinator that supports the provision of technical assistance and capacity building in communities impacted by natural disasters. ECRC staff participated in the FEMA IRC and RSF activities under Hurricane Michael that resulted in this proposed project. It is under this framework that ECRC will assist the City of Parker with the administration of the proposed project. These services are being provided at no cost to the City of Parker.

11. PROJECT NEED AND BENEFIT:

- A. Explain the demonstrated need, which the project addresses.** City leadership has long sought to create a more resilient Martin Lake that decreases flood risk and increases wildlife habitat while providing an amenity for the communities with more opportunities for recreation. However, city resources are not enough to undertake this large project. All previous stakeholder conversations have paused because of concerns due to potential environmental contaminants on the lake-bed. The city has not been able to identify the resources necessary to determine the level of contamination, if any, and the feasibility of restoring the natural estuary.
- B. Explain how the proposed project meets the purpose of one or more of the Goals and Priorities for FRCPP.** The proposed project meets the purpose of two priorities for the Florida Resilient Coastlines Program: Priority Area 3, and Priority Area 4. The City of Parker is committed to coastal resilience and has a robust coastal management element within its Comprehensive Plan. This project is the first phase of a Resilience Plan to restore natural flow to St. Andrew Bay, improving drainage and stormwater management, and improving the natural estuary habitat and surrounding shorelines. It is a regional collaboration between the Cities of Parker, Springfield, and Callaway; as well as Bay County and the ECRC.
- C. Discuss how the project is feasible and can be completed by the grant period deadline.** This is the first step of a multi-year process to create a resilience plan for Martin Lake of which the Cities of Parker and Springfield hope to receive continued technical assistance from DEP. This first step of conducting an environmental assessment and feasibility study will produce testing results to better understand if future sediment and water cleanup is needed. The study will also identify and evaluate projects and project alternatives to determine cost-effective and achievable solutions. To date, there is uncertainty about the level of contamination and the type of testing that will be needed. This project is very feasible because it is adjustable based on the findings and partner support. If basic environmental assessment testing can be secured in-kind, this project will take the next step of conducting a feasibility study. If the tests determine a higher-level of analysis is needed based on the contaminants identified, this project will define the additional needs.
- D. Explain how this project is addressing social vulnerability or vulnerability of historic resources or stormwater management systems.** This project addresses social vulnerability and stormwater management simultaneously by exploring ways that the lake can function as a stormwater system for a socially vulnerable community. The median income in the City of Parker is just over \$45,000 and nearly half of the housing units are renter occupied. Prior to Hurricane Michael, approximately 17% of all city residents were considered to be living in poverty. Approximately 14% of city residents had a bachelor's degree or higher, and over 18% had veteran status. In 2016, Bay County had a moderate to high level of social vulnerability according to the CDC's Social Vulnerability Index, and that was not including the compounding effects of Hurricane Michael. Flooding is significant along the lake as 62 homes were substantially damaged during Hurricane Michael on the Springfield side. The storm felled a significant number of trees, which caused the city to lose an invaluable element of its stormwater management system as the trees absorb so much water. Without the trees, rain events have overburdened the city's remaining infrastructure and stormwater inundate areas that have historically rarely occurred.

- 12. DESCRIPTION OF PROJECT OUTCOMES:** The project outcome will include definitive test results to determine if there is sediment and water quality contamination and the degree to which it exists. The sediment testing will be conducted by FAMU-FSU Engineering School students, the outcome will also include an assessment of whether it is feasible to re-establish Lake Martin as a marine estuary. These are both needed for the local communities and their residents to make informed decisions on how to proceed.

- 13. BUDGET SUMMARY:** Allowable budget categories and form of payment with the costs for this project are listed in the table below.

BUDGET SUMMARY BREAKDOWN

Budget Categories	Payment	Task 1	Task 2	Grant Amount Awarded
Salaries & Fringe	Fixed Price	\$0	\$0	\$0
Contractual Services	Fixed Price	\$5,000	\$70,000	\$75,000
GRANT AGREEMENT TOTAL		\$5,000	\$70,000	\$75,000

- A. Describe how the project costs was determined:** Water quality and sediment testing and analysis will be performed by FAMU-FSU Engineering School, Springfield's Engineering consultant felt the amount budgeted for the Feasibility Study was reasonable based upon historical costs.

B. CONTRACTUAL SERVICES:

CONTRACTUAL SERVICES BREAKDOWN

Company Name	Task 1	Task 2	Total
FAMU/FSU Engineering School	\$5,000	\$70,000	\$75,000
Contractual Total by Tasks	\$5,000	\$70,000	\$75,000

- 14. PROJECT TIMELINE:** All tasks are to be completed and submitted no later than the task/deliverable due date listed in the table below. Requests for any change must be submitted prior to the current task/deliverable due date listed in the project timeline. Requests are to be sent via separate email to the Department's Grant Manager, with the details of the request being made and the reason for the request.

PROJECT TIMELINE

Task No.	Task Title	Deliverable Due Date	Funding Amount
1	Sediment/water testing and preliminary analysis	03/31/2021	\$5,000
2	Feasibility Study	06/30/2021	\$70,000
Total			\$75,000

- 15. PERFORMANCE MEASURES:** The Grantee will submit all deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the Task/Deliverable Due Date listed in the Project Timeline. The Department's Grant Manager will review the task/deliverables to verify that they meet the specifications in the Grant Work Plan and this task description, to include any work being performed by any sub-contractor(s). Upon review and written acceptance by the Department's Grant Manager of all deliverables under this task, the Grantee may proceed with payment request submittal.
- 16. CONSEQUENCES FOR NON-PERFORMANCE:** The Department will reduce each Task Funding Amount by 5% for every day that the task/deliverable(s) is not received on the specified due date in the most recent Project Timeline, for the Agreement. Should a Change Order or Amendment be requested on the date of or after the most current task/deliverable due date, the 5% reduction of that Task Funding Amount will be imposed until the date of the requested change is received, via email by the Department.

- 17. PAYMENT REQUEST SCHEUDLE:** Grantee may submit a request for the Task Funding Amount to be paid using the Exhibit C, after all deliverables for that task have been approved by the Department. Request(s) for payment must include the Exhibit A showing 100% completion of that task and must be submitted within 45 days of the task/deliverable due date. Please refer to the [website Grants page](#) for “How to Request Payment”, and “Checklist for Requesting Payment”.

Or

Grantee may submit one request for the Grant Amount Awarded, by using the Exhibit C, after the project is 100% completed. The request for the Grant Amount Awarded, must include an Exhibit A showing 100% completion for all tasks, and must be submitted within 45 days of the last task/deliverable due date.

- 18. FUNDING SOURCE:** Grantee agrees to include on all publications, printed reports, audiovisuals (including videos, slides, and websites except that unless required under special terms of this Agreement, this requirement does not apply to audiovisuals produced as research instruments or for documenting experimentation or findings and which are not intended for presentation to the general public) or similar materials must include the DEP logo (which can be found on the Department’s website at <https://floridadep.gov/resilience> or by contacting the Department’s Grant Manager for a copy) and the following statement on, the following language.

“This work was funded in part through a grant agreement from the Florida Department of Environmental Protection, Florida Resilient Coastlines Program, by a grant provided by the Office of Resilience and Coastal Protection. The views, statements, findings, conclusions and recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the State of Florida or any of its subagencies.”

The next printed line shall identify the month and year of the publication.

III. TASKS & DELIVERABLES

Task #1

- A. Title:** Sediment/water testing and preliminary analysis
- B. Goal:** To verify whether contamination from the nearby pulp/paper mill and chemical plant uses, or other yet to be identified sources, exists. If so, determine whether the extent of contamination requires cleanup and remediation.
- C. Description:** There is uncertainty about whether Martin Lake sediments are contaminated, and if so, the degree of contamination. The contamination discussion has been largely anecdotal, and this uncertainty raises questions related to recreational use of the lake as well as a desire to ultimately restore the lake to its original state as a marine estuary. Testing both the water and sediment would identify the contaminants, contaminate level, and possibly identify the pollution sources. The consultant Scope of Work will identify testing locations, frequencies, and any conditions of testing, and will identify key issues to be examined as part of their feasibility analysis. This Task will implement the testing of sediments and water quality. Based upon test results, the consultant will make recommendations for future environmental assessment and cleanup and will provide a preliminary cost estimate for this recommendation.

D. Deliverables: The Grantee will submit all task/deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the task/deliverable due date listed in the Project Timeline.

- 1) Summary report to include the following:
 - a. Testing methodologies used
 - b. All testing results
 - c. Written recommendations for future additional assessments needed
 - d. Explanation if cleanup is required
 - e. Cost estimate for additional assessments and/or cleanup
 - f. Agendas, sign-in sheets and notes from all meetings with consultants

Task #2

A. Title: Feasibility Study

B. Goal: Determine if re-establishing Martin Lake as a marine estuary will produce an estuary that is viable and sustainable and would improve flood resilience for the city, including required projects and alternatives.

C. Description: Restoring Martin Lake would probably require several projects, including removing the water level control mechanism below U.S. 98-BUS. Previous suggested ideas include replacing it with an adjustable 2-way gate and installing culverts underneath U.S. 98-BUS. Other associated municipal projects may also impact the viability and sustainability of restoring Martin Lake as a marine estuary. For example, much of Springfield's stormwater system discharges into Martin Lake. There is a planned project to restore and improve stormwater drainage into Martin Lake, including debris removal and other maintenance of existing stormwater features such as inlets, pipes, retention ponds, and open ditches. The project also proposes making improvements to grades, side slopes and embankments, and restorative maintenance of all stormwater features. This task would identify project ideas, alternatives, and estimated costs.

D. Deliverables: The Grantee will submit all task/deliverables for each task via **one pdf document** to the Department's Grant Manager on or before the task/deliverable due date listed in the Project Timeline.

- 1) Final report of feasibility study outcomes and recommendations